# Plutonium Finishing Plant Project G. W. Jackson, Vice President/(509) 373-6622

Stabilization Packaging Equipment, Storage & Disposition



Stabilization Packaging Equipment Stabilization Activities in Glovebox 642-C



**Removing Bell Jar from** 

the Outer Can Welder System



Item Loaded into a
DOT-6M Shipping
Container in
Preparation for
Shipment to Los Alamos
National Laboratory

#### **OVERVIEW**

The Plutonium Finishing Plant (PFP) Project is responsible for work in Project Baseline Summary (PBS) RL-CP03, *Plutonium Finishing Plant*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of June 2003.

#### **NOTABLE ACCOMPLISHMENTS**

### **Maintain Safe and Secure Special Nuclear Material**

Preliminary work was conducted for the splitting of Materials Identification and Surveillance (MIS) samples. The MIS samples were successfully shipped to Los Alamos National Laboratory in mid-June.

#### Stabilization of Nuclear Materials

**Metals, Alloys, Oxides and Polycubes:** Three hundred forty-one oxide items were processed during the reporting period. As of June 22, 2003, 1,871 oxide items have been processed under the fiscal year (FY) 2003 work scope, which is 87 items under the fiscal-year-to-date goal.

**Residues:** During June, 21,447 grams of oxide/mixed oxide (MOX) were packed into 18 pipe over-pack containers (POCs). The annual Waste Isolation Pilot Plant recertification audit was completed on June 18, 2003. The audit included visual examination technique, nondestructive assay (NDA) by Segmented Gamma Scan Assay System, NDA by calorimetry, and solid sampling at the PFP. There were two recommendations but no corrective actions associated with the PFP programs from the audit.

The revision of the Safety Analysis Report for packaging for the POCs was approved on June 6, 2003. This revision will allow shipment to the Central Waste Complex of the majority of the oxide/MOX and Group 2 alloys. An additional revision will be necessary to address the remainder of the material.

**Outer Can Packaging:** Eighty-two 3013 containers were produced during June. A total of 688 3013 containers have been produced during this fiscal year, which is 26 containers ahead of the production baseline.

#### **Disposition of Nuclear Materials**

Thirty-nine containers of Low Level, transuranic (TRU)/TRU mixed, hazardous, recycled and 25 POCs of waste were shipped in the month of June. One hundred four 9975 containers and equipment for four loading stations were received from Rocky Flats Environmental Technology Site. An interoffice work order was issued to DOE/Oakland to purchase 300 9975 containers for delivery in October/November, 2003.

## **Disposition PFP Facility**

**Decontamination and Decommissioning (D&D) Crosscut:** The PFP Closure Project was the focus of the cover story in the May/June, 2003, issue of the <u>Radwaste Solutions</u> magazine, published by the American Nuclear Society.

## **NOTABLE ACCOMPLISHMENTS, CONTINUED**

The PFP End Point Criteria document was submitted to RL on June 27, 2003, three days ahead of schedule. This interim milestone is part of the schedule supporting the Tri-Party Agreement (TPA) milestone TRP-03-501 "Submit Facility End Point Criteria Document to Ecology", due September 30, 2003.

The As-Low-As-Reasonable-Achievable Center of Technology developed mock-ups to train PFP D&D workers in the use of cutting tools inside the glove box environment.

**Transition 232-Z Facility:** The Readiness Assessment Plan of Action and Start-Up Plan were revised to incorporate FH and RL comments. The notice of construction for 232-Z was transmitted by RL to the Washington Department of Health May 12, 2003. Draft Conditions and Limitations were received June 16, 2003.

**Transition 234-5Z Facility:** Comments were incorporated into the Legacy Holdup Removal Plan. The plan was transmitted to RL on July 2, 2003.

**Transition 241-Z:** The draft Closure Plan for the 241-Z Waste Treatment Facility was submitted to RL on June 26, 2003. This action supports the TPA milestone TRP-03-504 for submission of the final plan to the State of Washington Department of Ecology (Ecology) on July 31, 2003.

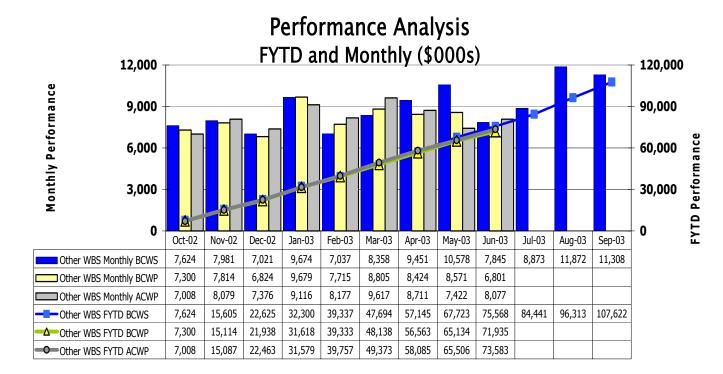
# FY 2003 SCHEDULE/COST PERFORMANCE (\$000)

**Schedule Variance (-\$3,633K/-5%):** The negative variance is primarily attributed to delayed procurement of POCs, deferral of the 2736-ZB Vault Complex documented safety analysis (DSA), and late start of the PFP complex engineering evaluation/cost analysis (EE/CA). The following corrective actions are planned: Procurement of POCs has been initiated and POCs will be received on a schedule to support packaging of MOX. A portion of the PFP complex EE/CA and the vault DSA work scope are projected to be carried over into next year. Year-end schedule impacts are anticipated to be minimal.

**Cost Variance (-\$1,648K/-2%):** The negative variance is primarily attributed to the unplanned increased processing rate (labor usage costs) for the high chloride oxides stabilization and underestimating dosimetry, Hanford Environmental Health Foundation Medical and sub-contract costs, and labor rate increases. These negative variance(s) will continue. However, the estimated year-end impact will be minimized due to projected efficiencies in other areas.

		Budgeted Cost of Work Scheduled	Work	Actual Cost of Work Performed	Schedule	Schedule Variance %	Cost	Cost Variance %	Budget At Completion
RL-CP03	Plutonium Finishing Plant	75,568	71,935	73,583	-3,633	-5%	-1,648	-2%	107,622

# FY 2003 Schedule/Cost Performance, continued



#### MILESTONE ACHIEVEMENT

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Number	Milestone Title	Туре	Due Date	Actual Date	Forecast Date	Status/ Comments
TRP-02-501	Complete Stabilization and Packaging of Polycubes	DNFSB	8/31/03	2/28/03		Complete
TRP-03-501	Submit Facility End Point Criteria Document to Ecology	TPA	9/30/03			On Schedule Submitted to RL 6/27/03
TRP-03-503	Submit to Ecology a PFP Residual Chemical Hazards Assessment	TPA	12/31/02	12/27/02		Complete
TRP-03-504	Submit Closure Plan for 241-Z Waste Treatment Facility TSD Unit to Ecology	TPA	7/31/03			On Schedule Submitted to RL 6/26/03
TRP-04-506	Completion of all Pu Stabilization & Packaging	PI	2/18/04			On Schedule
TRP-04-508	Complete Repackaging of PFP Residues and Ship to CWC	TPA	4/30/04			On Schedule
TRP-05-501	Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms	ТРА	6/30/05			On Schedule
TRP-05-503	Special Nuclear Material Transferred to Savannah River Site of DOE Approved Interim Storage	PI	9/30/05			On Schedule
TRP-05-504	Legacy Pu Holdup Removed & Dispositioned	PI	9/30/05			On Schedule
TRP-06-501	Complete 100% of Legacy Pu Holdup Removal & Disposition	PI	9/30/06			On Schedule
TRP-06-502	Complete Transition & Dismantlement of the 232-Z Bldg Incinerator	PI	9/30/06			On Schedule
TRP-06-503	Protected Area Eliminated	PI	12/31/05			On Schedule
TRP-06-507	PFP Facilities (61 Buildings) Ready For Demolition	PI	9/30/06			On Schedule

# FY 2003 FH FUNDS VS FORECAST (\$000)

	Expe	ected Funds	Spe	nd Forecast	,	Variance
RL-CP03 Plutonium Finishing Plant						_
Project Completion - Operating	\$	109,272	\$	108,839	\$	433

#### **ISSUES**

**Shipment of the first 3013 containers to the Savannah River Site (SRS):** PFP continues working with DOE (RL, HQ and SRS) to resolve and complete all activities needed to make the first shipment of material from PFP to SRS.